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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/885,285

12/04/2000

Harald Merkel

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2145

2292

7590

03/11/2005

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EXAMINER

STOCK JR, GORDON J

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/885,285

Applicant(s)

MERKEL ET AL.

Examiner

Gordon J. Stock

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8, 9, 11-14 and 16 is/are rejected.
- 7) ☒ Claim(s) 4-7, 10, 15 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20030327.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. As to the response filed December 9, 2004 that elects Species II with traverse, the Examiner finds the Applicant's arguments persuasive. Therefore, the Examiner withdraws the restriction requirement and will examine the entire application.

Drawings and Specification

2. The drawings and specification are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **85** of Fig. 7. And the specification is objected to for the following: lines 12 and 14 of page 7 refer to claims 1, 12, and 17 which may or may not be pending in the future. Correction required. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 2, 3, 8, 9, 11, 12, 13, 14, 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Klingenbeck et al. (4,798,209)** in view of **Svenson et al. (6,026,173)**.

As for **claims 1 and 12**, Klingenbeck in a method and apparatus for finding temperature distribution of a subject, an emitter of EM radiation in a multiple of frequencies (Fig. 1: 6; col. 3, lines 30-50); at least a sensor arranged on an opposite side to detect EM radiation from said material originating from said emitter (Fig. 1: detector arrays); an analyzer to receive information comprising phase and/or amplitude (Fig. 1: computers and memories; col. 4, lines 35-55) and calculates a selected property, temperature distribution (col. 7, lines 10-60; col. 8, lines 15-40). As for conveying means, Klingenbeck is silent. However, Examiner takes Official Notice that conveyance means are well-known in the art to convey the patient through the inspection device. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to have conveyance means in order to move the subject between transmitter and detector arrays. As for an imaging device, Klingenbeck is silent; however, he states that computer tomography is used to derive three dimensional information of a tumor (col. 6, lines 20-28). Svenson in EM imaging teaches that tomography comprises microwave imaging (col. 1, lines 15-35). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made that an imaging device was used, microwave imaging system ,

in order to derive 3-d internal contour information of tumors, for computer tomography was used to derive tumor positional information.

As for **claim 2**, Klingenbeck in view of Svenson discloses everything as above (see **claim 1**). In addition, Klingenbeck discloses several memory devices (Fig. 1: 23, 25, 27, 45).

As for **claim 3**, Klingenbeck in view of Svenson discloses everything as above (see **claim 1**). In addition, Svenson states that image processing is used with at least one imaging sensor, several emitter receivers (col. 9, lines 25-30) and image processing is done with several algorithms to produce a profile of the object being imaged (col. 9, lines 35-55).

As for **claims 8-9, 11, 13, 14, and 16** Klingenbeck in view of Svenson discloses everything as above (see **claims 1-3 and 12**). In addition, Klingenbeck discloses means to interpolate previously measured results, stored in a memory to obtain a property distribution; means to calculate dielectric distribution; and convert to temperature distribution (Fig. 1: memories, intermediate memory; col. 6, lines 15-25; col. 4, lines 40-55; col. 7, lines 40-65; col. 8, lines 1-40).

Allowable Subject Matter

5. **Claims 4-7, 10, 15, and 17** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to **claim 4**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in a device for measuring the distribution of selected properties of a material at least one imaging sensor detecting a picture of the reflectivity, in combination with the rest of the limitations of **claims 4-5**.

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As to **claim 6**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in a device for measuring the distribution of selected properties of a material said imaging sensor detects a picture of the reflectivity and transmissivity and propagation speed of sound waves, in combination with the rest of the limitations of **claims 6-7**.

As to **claim 10**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in a device for measuring the distribution of selected properties of a material the particular three dimensional model and means to apply said model, in combination with the rest of the limitations of **claims 10 and 17**.

As to **claim 15**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in a method for measuring selected properties of a material providing a 3-D model and applying said 3-D model, in combination with the rest of the limitations of **claim 15**.

Conclusion

Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice. Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made by the Board of Patent Appeals and Interferences. In re Selmi, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); In re Fischer, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well-known statement is taken to be admitted prior art. In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a

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demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-known statement in the next reply after the Office action in which the well known statement was made.

Fax/Telephone Numbers

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

- 1) Contain either a statement "DRAFT" or "PROPOSED AMENDMENT" on the fax cover sheet; and
- 2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is: (703) 872-9306

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (571) 272-2431.

The examiner can normally be reached on Monday-Friday, 10:00 a.m. - 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr., can be reached at 571-272-2800 ext 77.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private Pair system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MD
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March 6, 2005


Zandra V. Smith
Primary Examiner
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